Table A4.1.—Equations for public elementary and secondary teachers

Dependent Variable	Equation					R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Elementary	ELTCH	=	94.0	+ 1.8SGRANT (5.9)	+ 0.03ELENR (3.6)	0.99	1.7	AR1	0.98 (43.2)	1960 to 1998
Secondary	SCTCH	=	74.1	+ 1.5SGRANT3 (10.4)	+ 0.03SCENR (5.8)	0.95	1.5	AR1	0.72 (5.3)	1965 to 1998

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods* , New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics,* New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

ELTCH = Number of public elementary classroom teachers, in thousands
SCTCH = Number of public secondary classroom teachers, in thousands
SGRANT = Education revenue receipts from state sources per capita
SGRANT3 = Education revenue receipts from state sources per capita lagged 3 years
ELENR = Number of students enrolled in public elementary schools, in thousands
SCENR = Number of students enrolled in public secondary schools, in thousands

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Model.

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